

LISTING OF THE CLAIMS

1. (original) A micro fabrication comprising:
a substrate; and
a spirally patterned conductor layer formed over the substrate, the spirally patterned conductor layer being spirally topographically tapered in a vortex shape.
2. (original) The micro fabrication of claim 1 wherein the spirally patterned conductor layer is employed within a micro structure selected from the group consisting of microelectronic inductor structures, microelectronic resonator structures, microelectronic waveguide structures, micromechanical spring structures, microelectronic interconnect structures, microelectromagnetic valve structures, microelectromechanical resistive cavity heater structures and microelectromagnetic suspension structures.
3. (original) The micro fabrication of claim 1 wherein a pointed end of the vortex is directed towards the substrate.
4. (original) The micro fabrication of claim 1 wherein a pointed end of the vortex is directed away from the substrate.
- ✓ 5. (original) The micro fabrication of claim 1 wherein the vortex shape has an open end across dimension of from about 50 to about 900 microns and a height of from about 50 to about 600 microns.
6. (original) A microelectronic fabrication comprising:
a microelectronic substrate; and
a spirally patterned conductor layer formed over the substrate, the spirally patterned conductor layer being spirally topographically tapered in a vortex shape.

7. (original) The microelectronic fabrication of claim 6 wherein the spirally patterned conductor layer is employed within a microelectronic inductor structure.

8. (original) The microelectronic fabrication of claim 6 wherein a pointed end of the vortex is directed towards the substrate.

9. (original) The microelectronic fabrication of claim 6 wherein a pointed end of the vortex is directed away from the substrate.

10. (original) The microelectronic fabrication of claim 6 wherein the vortex shape has an open end across dimension of from about 50 to about 900 microns and a height of from about 50 to about 600 microns.

11. (original) A method for fabricating a micro fabrication comprising:

providing a substrate; and

forming over the substrate a spirally patterned conductor layer, the spirally patterned conductor layer being spirally topographically tapered in a vortex shape.

12. (original) The method of claim 11 wherein the spirally patterned conductor layer is employed within a micro structure selected from the group consisting of microelectronic inductor structures, microelectronic resonator structures, microelectronic waveguide structures, micromechanical spring structures, microelectronic interconnect structures, microelectromagnetic valve structures, microelectromechanical resistive cavity heater structures and microelectromagnetic suspension structures.

13. (original) The method of claim 11 wherein a pointed end of the vortex is directed towards the substrate.

14. (original) The method of claim 11 wherein a pointed end of the vortex is directed away from the substrate.

15. (original) The method of claim 11 wherein the vortex shape has an open end across dimension of from about 50 to about 900 microns and a height of from about 50 to about 600 microns.

16. (original) A method for fabricating a microelectronic fabrication comprising:
providing a microelectronic substrate; and
forming over the microelectronic substrate a spirally patterned conductor layer, the spirally patterned conductor layer being spirally topographically tapered in a vortex shape.

17. (original) The method of claim 16 wherein the spirally patterned conductor layer is employed within a microelectronic inductor structure.

18. (original) The method of claim 16 wherein a pointed end of the vortex is directed towards the substrate.

19. (original) The method of claim 16 wherein a pointed end of the vortex is directed away from the substrate.

20. (original) The method of claim 16 wherein the vortex shape has an open end across dimension of from about 50 to about 900 microns and a height of from about 50 to about 600 microns.